

Every six minutes, someone is injured in a fire. Statistics show electrical fires kill more than 750 people and cause more than \$1 billion in damage annually and some of these fires are started by electrical extension cords.

Fire departments handle 3,300 extension cord fires per year in the U.S., which result in approximately \$50 million in property damage and many serious injuries and deaths. The U.S. Consumer Product Safety Commission estimates the number of extension cord fires could be 20 times higher, but most are handled without calling the fire department.

"The problem is people try to hook up too many things on one cord and you end up with a lot of heat," said Bret Locklier, fire investigator with the Clark County Fire Department. "So if you have a long run, like 50 feet from garage to camp trailer, you want a heavier cord, like 12 or 14 gauge."

The rule of thumb is: look for the gauge listing on the extension cord. The higher the number, the larger the load it can handle.

Extension cords must use 16 AWG wire or larger, which is 13 amps at 125 volts. The minimum rating for the extension cord for common household appliances is:

- Space Heaters : 16 AWG or 13 amps.
- Hair dryers: 1,500 watts or smaller 16 AWG or 13 amps.
- Hair Dryers over 1,500 watt: 14 AWG or 15 amps.
- Lamps: 16 AWG or 13 amps.
- Power Tools 1,500 watts or smaller: 16 AWG or 13 amps.
- Power Tools 1,500 to 1,875 watts: 14 AWG or 15 amps.
- Iron: 16 AWG or 13 amps.

These examples assume they are the only load on the extension cord. Plugging an iron and a space heater into the same cord will result in an overload, which may lead to a fire. When in doubt, purchase a heavy gauge extension.

"The difference in price between one that's too light and one that can handle a heavier load is very minimal," Locklier said.

When a cord is warm to the touch, you have overloaded the cord and the risk of a fire rises significantly.

Vacuuming over electric cords creates nicks and cuts in the insulation, creating a fire hazard. You should also avoid running electric cords under carpets or rugs where traffic patterns will wear them down. And never put them near your pet's sleeping area, because wet animals have been electrocuted when they touch the cords.

Similarly, add-on plugs are extremely dangerous. Each extension cord has a specific rating (typically 16 AWG is 125 volt, 13 amps, or 1,500 watt). By plugging in a heater (1,500 watt) and a lamp (100 watt), the cord is now overloaded by 100 watt or 1 amp. In time, this will break down the insulation of the cord and cause a fire. The circuit breaker or fuse in the load center is typically 20 amps and will not prevent this fire.

New on the market is an extension cord called Fire Shield which incorporates an internal sensor which shuts it off as soon as an overload occurs. The patented Fire Shield design is the only cord available today designed to prevent cord fires, and can be found at the Home Depot for less than \$10.

Other household items which Locklier points out as dangerous: lint build-up in dryers (if you have plastic exhaust hose, replace it with an aluminum one); halogen lamps have a near-immediate burn potential for any material that is nearby.

And what about kitties who like to chew cords?

"They're looking to commit suicide," Locklier said. "It'll fry them in a heartbeat."